3. Program Effectiveness

The advent of the 21st Century Community Learning Center program, combined with a general "movement" to use after-school programming as an adjunct to school reform, has generated a variety of research on the effectiveness of out-of-school time (OST) programming. While much of this research suffers from a lack of methodological rigor, the better studies have begun to indicated that OST activities can have positive effects on the achievement of low-achieving or at-risk students in reading and mathematics; elementary students probably benefit more from reading improvement activities and older students from math activities; activities can positively affect student achievement even when they do not focus exclusively on academic content; and OST activities that "provide one-on-one tutoring for low-achieving or at-risk students have strong positive effects on student achievement in reading."[1]

In each teaching site, school and school district at which ICARD/EMU provides academic services through SES, teaching content and methods used will be based on materials and practices that have been tested and proven to be measurably effective, either in the specific school setting in which the program is delivered, or in other educational venues. The assessment tools, instructional materials and achievement measures that are used will all be of high quality, as attested to by previous experience and the results of rigorous, research-based testing. The instructional approaches used in ICARD's SES program promise significant levels of student improvement.

For example, Willow Run Community Schools have adopted the Renaissance Learning Tools, which ICARD/EMU also uses in its afterschool programs and will use in the SES program in Willow Run.

As described by an accrediting agency, "The Renaissance Learning tools are listed in the Catalog for School Reform Models produced jointly by the Northwest Regional Educational Laboratory (NWREL) and The Center for Comprehensive School Reform and Improvement. Criteria for selecting models include evidence of effectiveness in improving student academic achievement, extent of replication, implementation assistance provided to schools, and comprehensiveness."[2]

The Renaissance Learning Tools include the assessment tools of Star Performance Reading and Star Performance Math, and the teaching tools of Accelerated

[1] Lauer, Patricia A., Motoko Akiba, Stephanie B. Wilkerson, Helen S. Apthorp, David Snow, and Mya Martin-Glenn (2004). *The effectiveness of out-of-school-time strategies in assisting low-achieving students in reading and mathematics: A research synthesis* (Updated ed.). Aurora, CO: Mid-continent Research for Education and Learning.

[2] www.nwrel.org

Reading and Accelerated Math. The product website recites the benefits of the program and also cites research-based evidence of their effectiveness.

> Renaissance solutions enable you to: ensure success for every student, meet the requirements of No Child Left Behind, maximize the effectiveness of your curriculum and instructional programs, help students master state standards, and restore the joy to teaching and learning.
>
> An extensive body of research confirms the effectiveness of Accelerated Reader and Reading Renaissance best practices in helping educators dramatically improve student reading skills. The research consistently demonstrates that computerized curriculum management systems such as Accelerated Reader, when implemented correctly, enable teachers to target instruction and accelerate reading growth for students of all ability levels while saving time and paperwork." [3]

Specific research testifying to the effectiveness of these instruments is cited below:

Differentiating Math Instruction:
A Large Scale Study of Accelerated Math
Ysseldyke, J. & S. Tardrew, 2002.

Results from this study, including 2,202 students in 125 classrooms across 24 states, provide a powerful testament to the ability of curriculum-based instructional management systems to deliver accelerated student gain. Accelerated Math students gained significantly more on STAR Math scaled score and Normal Curve Equivalent than their matched controls.

The Use of Accelerated Math in an
Urban Title I Elementary School
Sadusky, L.A., & S.K. Brem.
A first-year implementation of Math Renaissance in grades three through five during the 2001-2002 school year was examined at a K-6 urban elementary school. The researchers found that teachers were able to quickly integrate Math Renaissance into their classrooms and immediately begin using data to drive instructional decisions This randomized experimental study involved third- and fifth-grade classrooms in a Title I, urban, ethnically diverse school with a demographic breakdown of 15% African-American, 33% Asian, 9% Hispanic, and 43% White students. Students using Accelerated Reader significantly outperformed students not using the program on the American Guidance Service Grade Reading Test in reading comprehension. These gains were especially pronounced for students with low reading ability and implement individualized math instruction.

[3] www.renlearn.com

Accelerated Reader vs. Non-Accelerated Reader: How Students Using Accelerated Reader Outperformed the Control Condition in a Tightly Controlled Experimental Study
Samuels, S.J., M. Lewis, Y. Wu, J. Reininger, & A. Murphy.

This randomized experimental study involved third- and fifth-grade classrooms in a Title I, urban, ethnically diverse school with a demographic breakdown of 15% African-American, 33% Asian, 9% Hispanic, and 43% White students. Students using Accelerated Reader significantly outperformed students not using the program on the American Guidance Service Grade Reading Test in reading comprehension. These gains were especially pronounced for students with low reading ability.

4. Evaluation/Monitoring

ICARD/EMU's SES programs will track student academic achievement through the use of validated, standardized assessment tools and measures of student achievement. The process will be regular and rigorous; it will also provide benchmarks and achievement measures that will be used to adjust individual and collective programming.

In Willow Run, the STAR Reading and STAR Math assessments developed by Renaissance Learning will be used to ensure that students receive tutoring designed to meet their individual needs in the basic academic content areas. Willow Run also uses the EdPerformance assessment tools for math and reading from Scantron/EDVision. These provide online, standards-based adaptive measurement (SAM), to identify each student's instructional level. Results are available immediately. EdPerformance also includes a tool for assessing learning styles, which ICARD/EMU will use to determine how best to support each student's learning style. Implementation of this program will involve classroom teachers and families, who will be asked to fill out an observational instrument on students to provide their assessment of strengths and areas that need support.

These combined approaches will provide knowledge of how the student learns, his or her current level, and skill areas needing improvement. Collectively, this information will provide the basis for developing the child's Student Learning Plan.

Student Plan, Monitoring and Communications: A customized Student Learning Plan (SLP) will be developed for each student. The SLP will be based on the assessment results, information about past student achievement or needed improvement areas provided by teacher participation, family consultation, and student contribution. The plans will be modified based on the student's progress and needs. Each student will have a plan book so that daily activities can be constructed, monitored, and recorded. Tutors and students will be given time for